

The Archaeological Excavation of an Outrigger Canoe at the Nasilai Site, Rewa Delta, Viti Levu, Fiji



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IN HIS CLASSIC TEXT on Oceanic canoes, *Piroques Oceaniennes* (1976), Father Jean Neyret argued that the canoes of the Fiji Islands were among the “masterpieces of Oceanic naval construction.” According to Neyret, this was due to Fiji’s location at the “crossroads” of the Pacific, which permitted the successful integration of diverse Polynesian, Melanesian, and Micronesian maritime technologies to produce vessels that were uniquely rapid, solid, and seaworthy (Neyret 1976:47). This paper reports on the 1987 archaeological excavation in Fiji of portions of a late prehistoric to early historic canoe at the site of Nasilai. The evidence collected indicates a canoe that unites diverse Oceanic maritime technologies as described by Neyret. Further, the vessel revealed by the excavations provides the first direct example of a riverine outrigger canoe of a type previously known only from historical reference and secondary description. Referring to this “*Type Ancien*,” Neyret writes: “This model is very interesting, as it reveals characteristics of Fijian canoes of 100 years ago, before European influence was evidenced in matters of naval construction” (Neyret 1976:59; my translation).

This paper presents a description and analysis of the Nasilai remains, exceptional in the quality of their preservation and their significance to the growing understanding of Oceanic maritime technology and the sociopolitical developments it made possible.

Although Pacific island communities have been classically portrayed as ideal “laboratories” for the study of bounded social groups developing in pelagic isolation (Kirch 1984:2–4, 20), recent research suggests that a “sea of islands” (Friedman 1982; Hau’ofa 1994; Kirch 1984:82) perspective—a view of waters and landmasses as a total integrated Pacific setting—may represent a more accurate portrayal of the Pacific context, at least with regard to late prehistoric sociopolitical developments in western Polynesia and Fiji (Kaeppler 1971, 1978; Rosenthal 1991, 1993). Late prehistoric developments in naval technology like those evidenced at Nasilai indicate that the facilitation of maritime exploitation and

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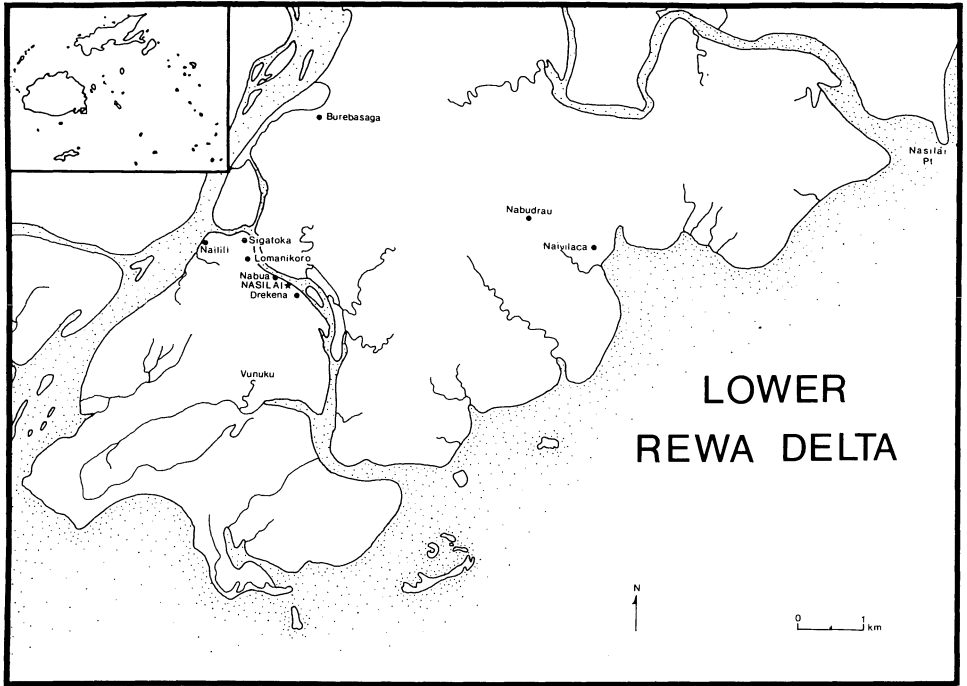


Fig. 1. The research area.

increased ease of interisland interaction may have been integral to the rise of the complex, late prehistoric sociopolitical forms of western Polynesia and Fiji.

GEOGRAPHIC AND HISTORIC BACKGROUND

The site of Nasilai is located at $18^{\circ}06'S$ longitude and $178^{\circ}34'E$ latitude in the southeastern segment of the main Fijian island of Viti Levu. It lies on the outside of a broad meander of the Bucona River, one of the tributaries of the Rewa River in the lower part of the delta (Fig. 1). The area is a prograding delta subject to extreme flooding. Aerial photo analysis and historical evidence indicate that there has been some shifting of river courses in this area within the past several hundred years (Parry 1977).

The area is presently settled by inhabitants living in small nucleated villages of 50–200 people as well as in a few larger village clusters. The area is intensively cultivated primarily in cassava and taro, including the giant swamp taro, or *via kana* (*Cyrtosperma chamissonis*), for which the area is famed.

The 1987 archaeological excavations were situated on the outskirts of the village of Nasilai adjacent to the Bucona River. Nasilai is one of several villages among a dense cluster of villages or residential sections along the Bucona tributary each of which performs specific traditional duties and directly serves the Rewan chiefly capital of Lomanikoro. Nasilai village is inhabited by fishermen who serve the Sacred King of Rewa, the Roko Tui Dreketi. Representing one

of the traditional roles performed by specific groups within a Fijian kingdom, the Nasilai villagers are *kai wai*, literally, "water peoples," serving as fishermen and traditional navigator clans for their chiefs.

FIELD PROCEDURES

The 1987 excavations were precipitated by an episode of flooding that caused severe erosion of a segment of the bank of the river adjacent to the village of Nasilai, Rewa. The erosion exposed a number of worked wooden objects, which were brought to the attention of the Fiji Museum. Identifying the artifacts as a *bokola* (cannibal victim) serving dish and two probable canoe planks, the Fiji Museum authorized test excavations at Nasilai under my direction.

In early 1987, three and a half months of archaeological field excavations were conducted at the site. The goal of the work was to determine the nature of the occupation levels and cultural remains.¹ At the outset of the fieldwork, exploratory cores were sunk into the site area at stratified unaligned intervals of two m in order to test for the presence or absence of cultural deposits across the area within the confines of the riverbank and the presently inhabited area of the village. Organic deposits indicative of a possible cultural level were detected across the entire site area. Excavation pits were thus located as indicated in Figure 2 in order to provide a cross-sectional view of the central site area in both north/south and east/west directions. A total of five 1.5 m² pits with one 50 cm extension were sunk during the 1987 field season. Placement of the pits turned out to be fortunate indeed, as the boundaries of a significant structure—a post-lined ditch—within which the canoe fragments were deposited, was identified.

Waterlogged conditions at the site created reducing or anaerobic conditions that allowed for the exceptional preservation of organic remains at the site, including worked wood, woven and plaited reeds, *magimagi* or sennit cord, and leaf, nut, and seed material. Pumps were run continuously in order to clear the pits for excavation. All soil removed from the pits was screened through 0.5 cm mesh. Spot heights were recorded for all artifacts before they were lifted. Field descriptions were recorded, measured plans drawn, and photographs taken every 10–15 cm as the excavations progressed. Detailed section drawings were made once excavation of the pits was completed. All objects removed from the Nasilai site were brought to the Fiji Museum for conservation by Gladys Fulman, acting director of the Fiji Museum.

THE NASILAI STRATIGRAPHY AND DEPOSITIONAL HISTORY

Nasilai site geology and depositional history were researched by the author in conjunction with Patrick Nunn, senior lecturer in geography at the University of the South Pacific. Figure 3 indicates the stratigraphy of the site as evidenced in the northernmost section. According to Nunn, no true soils were observed at the site. Several indications of stratification are present, though these are generally poorly formed and discontinuous from one exposure to another. Of particular note, Nunn identifies one clear stratigraphic discontinuity between the gray sediments associated with the canoe deposits of Level IV and the orange-brown silts (Levels I, II, and III) that overlie them (Nunn, personal communication 1987).

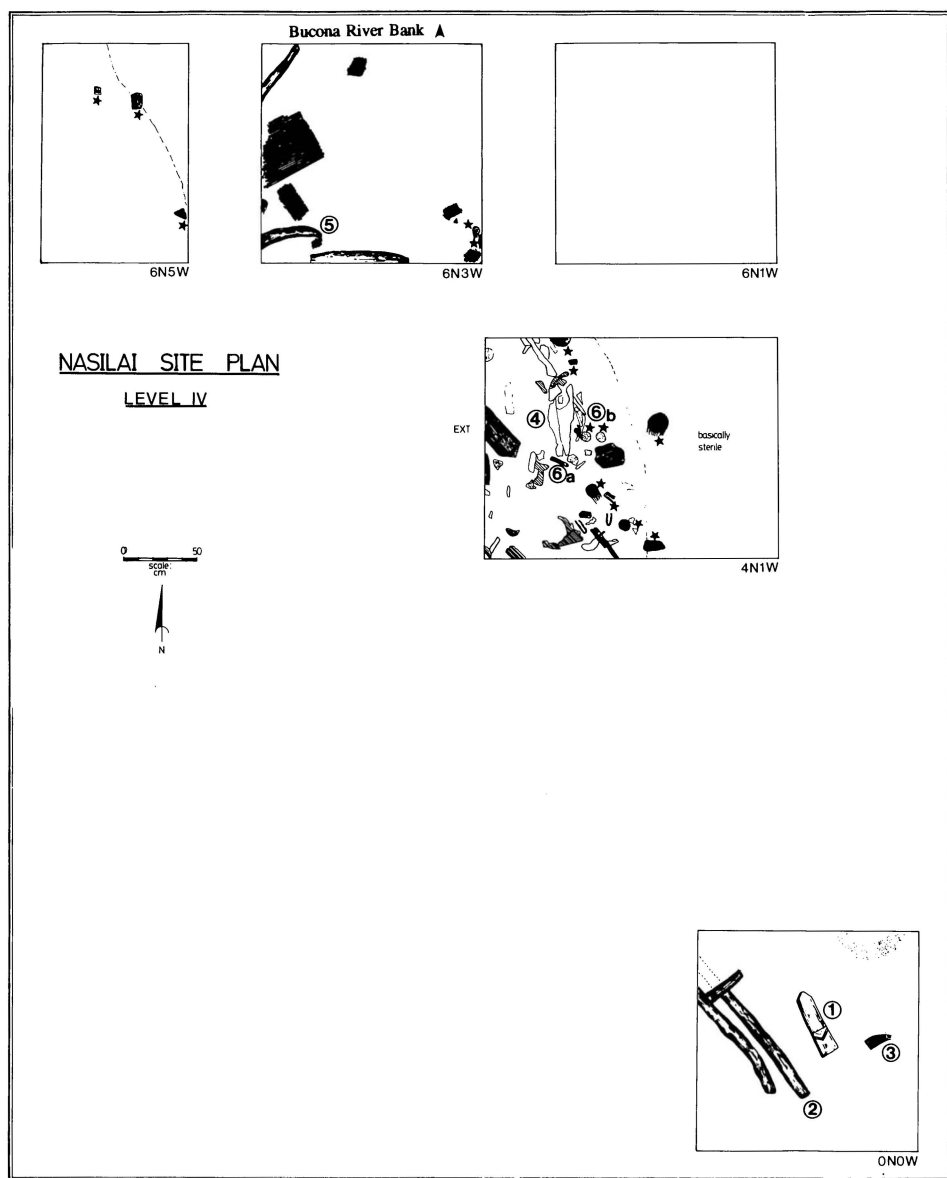


Fig. 2. Nasilai Level IV site plan: 1, pilaster; 2, basal portion of mast; 3, club head; 4, outrigger float portion (fragmentary); 5, cabin buttress; 6, stanchions. ★ = posts.

The upper three levels at Nasilai are distinguished on the basis of gradations in sediment color, texture, and density. Level I is comprised of loosely packed, structureless or thinly laminated silt, dark brown in color (7.5YR 3/4). Level II is hard-packed, structureless or thinly laminated silt, dark yellowish brown in color (10YR 3/2), and Level III is hard-packed, moist structureless silt, yellowish red in color (5YR 3/6). It is the type of sediment found in Level III that is utilized by the villagers today as clay for pottery production.

NORTH SECTION

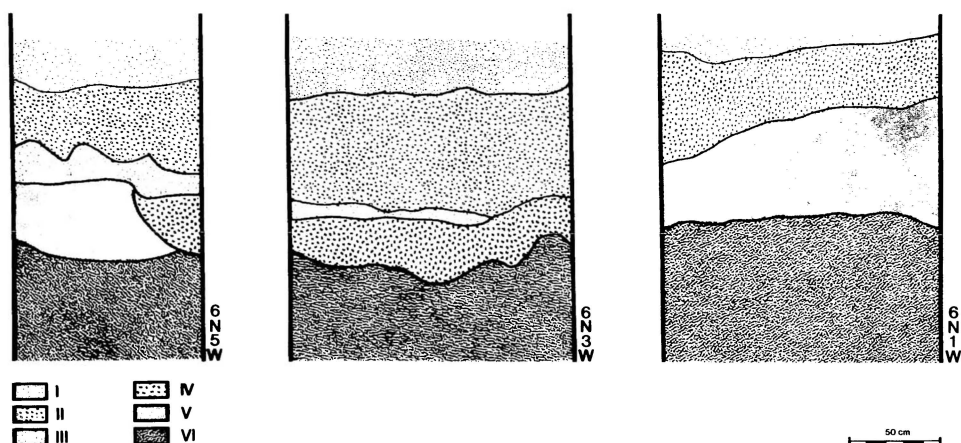


Fig. 3. Nasilai stratigraphy—north section.

Cultural features within the upper three levels included three former cultivation pits in Level I. In addition, two pits in 0N0W, one beginning in Level I and the other in Level II, were cut down into the lowest-lying blue-gray clays. Historic artifacts, ceramics, and shell found in these pits suggest that they were refuse dumps. There is no evidence of other cultural features in Levels I, II, and III.

The depositional history of the orange-brown silts of Levels I, II, and III is described by Nunn:

On account of sorting and granular characteristics, (these levels are thought) . . . to have been accumulated on a point-bar surface on the inside of a meander. Most of the deposits were probably laid down during high-water stages . . . likely to have been linked to tides and moderate, regular floods rather than extreme, uncommon events. The discontinuities which can be observed in this deposit probably indicate localized erosion . . . suggesting that this part of the record is . . . incomplete in both space and time. The presence of sand, perhaps as much as 15–20 percent of this deposit in places, may indicate aeolian deposition and date from a time when the site was open to the sea.

The final environmental change is from the point-bar aggradation environment indicated by the orange-brown silts to the present day erosional situation. This can be explained most easily by shifts in the main river channel and changes in its regime. (Nunn, personal communication 1987)

Under the above-mentioned sediments lies Level IV, the canoe-bearing stratum. It is comprised of moist silty clay that is dark-gray in color (5Y 4/1). Deposits are dense in organic material including seeds, leaves, plaited and woven reed, and fibers, as well as numerous worked wood artifacts. The frequency of ceramics is high throughout this level. A sharp discrepancy is found in the frequency of shell material within these gray silty clays. Upper and lower horizons were distinguished in level IV on the basis of the density of shell and organic material. The upper horizon is almost barren of shell. However, underlying the densest patches of woven and plaited reed and fibrous material, the lower gray

sediment horizon evidences extremely dense shell deposits, including two distinct shell lenses running across 6N3W. With the exception of one piece of porcelain from 4N1W, no European historic objects were recovered from Level IV. Level IV is deposited within the confines of a post-lined ditch structure dug into Level V. According to Nunn:

the sediments within this main occupation layer are well sorted, their coloring suggestive of reducing or anaerobic conditions. Sediments appear to have been deposited in the context of slow-moving water conditions. Within and in some places just above [this] main occupation layer is found the prominent unconformity which is probably an erosional unconformity. This implies that accumulation of the [sediments] continued but then, by the time the character of the deposition was starting to change into the overlying orange-brown silts, a major erosional event, undoubtedly flood related, took place and perhaps as much as 60 cm of material were removed from the contemporary surface. Clearly, this could have included human artifacts. The figure of 60 cm is a maximum based on the assumed character of the "missing" transition zone.

The former presence of a transition zone between the two contrasting strata is supported by considerations of paleoenvironments. The most likely reason for the filling of the backwater/swamp is that movements of the main river channel had brought its outlet into a position on the inside of a broad meander bend. Deposition in such an environment is indicated by the orange-brown silts. Further, when the post-lined ditch structure was constructed, probably on the side of a creek full of standing water at high tide (the inhabitants) . . . undoubtedly found that they had to excavate a large area to allow (continuing) access to the main river. Such excavations probably caused a comparatively abrupt transformation of the environment from a backswamp to point-bar condition, as suggested by the sediments, although there where undoubtedly several major scour events. (Nunn, personal communication 1987)

The level below the canoe-bearing stratum, Level V, is hard-packed, moist fine-grained silt, yellowish red in color (5YR 3/6) with some gray mottling. No shell and very little pottery is found in this layer. Some seed material is present. Parallel rows of worked wooden posts were set into Level V. Further, as indicated above, a ditch was intentionally dug into Level V. Level IV, above, was deposited within the confines of posts lining the ditch excavated into Level V.

The underlying Level VI is loosely packed, moist clay with some patches of sand. It is very dark-gray in color (N 4/1.5, 7.5R 3/0) as a result of reducing or anaerobic conditions. No shell, very few pottery fragments, and a small quantity of seed are found in this level. Decayed unworked wood is evident. No indication of cultural features and no historic artifacts were found at this level. According to Nunn: "It seems likely that [these sediments] accumulated in a backwater or swamp area. Were more of these clays exposed, they would probably exhibit a change in colour from bottom to top which would show the intensification of reducing conditions interpreted, from the limited observations made, as gradual infilling of the backwater or swamp" (Nunn, personal communication 1987).

In sum, the stratigraphic evidence indicates that the canoe fragments were deposited within Level IV and are associated with an intentionally excavated ditch that was lined with parallel rows of posts and dug into the underlying Level V. The evidence indicates a backwater or swamp environment at the time of the excavation of the post-lined ditch structure. Gradual infilling of the ditch occurred during the course of the Level IV occupation. The excavation of the artificial ditch at the onset of the Level IV occupation precipitated a localized environ-

TABLE 1. NASILAI RADIOCARBON DATES

LAB. NO.	MATERIAL	¹⁴ C AGE	¹³ C AGE	CAL A.D.	CAL A.D.
		YEARS B.P.	YEARS B.P.	RANGE (1σ)	RANGE (2σ)
Beta-22096	Wood from Level IV post	0 ± 90	30 ± 90	1691–1955	1660–1955
Beta-22097	Wood from canoe mast	330 ± 70	280 ± 70	1494–1662	1440–1955

Source: Beta Analytic Inc. 1987

mental shift from a swamp to point-bar condition. A major stratigraphic break associated with the transition from Level IV to the upper levels indicates a dramatic scour-event, most probably a severe flood episode. This flood episode may explain the disarticulation of the canoe remains and certainly explains the demise of the Level IV occupation activities as reflected in the site deposits.

SITE CHRONOLOGY AND DATING

The upper Levels I, II, and III all bear European-derived historic artifacts clearly indicating an occupation postdating the early decades of the 1800s when Europeans first came into intensive contact with Fiji. Historic artifacts within these three upper levels at Nasilai include predominantly glass, writing slates, lead pencils, clay pipe fragments, iron artifacts, copper buttons, a harmonica fragment, a metal spoon, and porcelain.

With regard to the occupation associated with the post-lined canal and canoe deposits (Level IV), two radio-carbon (¹⁴C) determinations were run by Beta Analytic Laboratories (U.S.A.). The radiocarbon determinations give a date for Level IV of approximately 300 years B.P. (Table 1).

With the exception of one piece of porcelain, no historic objects were recovered from Level IV. In Level V (the orange silts into which posts were set and a canal dug) a wire spring and small iron fragment were found, as well as a marble at the base of a land-crab hole. With regard to this latter object, children are reported to play marbles in the site area to this day, often losing them down land-crab holes. Given the lack of historic finds in Levels IV, V, and VI except for those noted above, and given the land-crab disturbance in the site area, it is most likely that these historic finds are intrusive.

Missionaries had established one of their earliest settlements in the 1830s at Lomanikoro, the chiefly capital of Rewa just downriver from Nasilai. Further, because of the town's dominant political status in Fiji (rivaled only by the kingdom of Bau to the north), Lomanikoro was much frequented by early European traders and seamen. For this reason, even recognizing the historic finds noted above, the latest possible occupation of Level IV would be the earliest decades of the 1800s before intensive European contact and distribution of trade wares into the area. This leaves a date of A.D. 1440 to early A.D. 1800s for Level IV, the upper limit being most generous.

This chronological range is supported by the ceramic decoration technique frequencies within the Nasilai strata. In the upper four levels, there is a trend toward decreasing frequency of cross-hatch-paddle-impressed sherds—35 percent represented in the lowest horizon of Level IV and decreasing to 20 percent in the

upper horizon of Level IV and Level III to 18 percent and 17 percent in Levels I and II, respectively.

Further, there is a shift in the percentages and relative frequencies of incised (lines: single, parallel, wavy) and appliqué sherds in the upper four levels. In Level IV, upper and lower, the percentages of incised sherds are 17 percent and 8 percent, respectively. Appliqué techniques represent 31 percent and 30 percent of the decorated sherds in the two horizons, respectively. This is in contrast to the upper three levels, where the proportion of incised sherds is close to or outnumbers the sherds exhibiting appliqué techniques. In Level III, there are 24 percent incised sherds and 13 percent appliqué sherds. In Level II, there are 18 percent incised and 21 percent appliqué sherds. In Level I, there are 25 percent incised sherds and 23 percent appliqué sherds.

The predominance of incised and appliqué pottery motifs places Levels I–IV assemblages into what researchers have termed the Ra phase of Fijian ceramic development (Gifford 1951; Green 1963; Shaw 1967). Shaw (1967) suggests a date of about A.D. 1650 for the beginning of this phase. Green has argued that this later period is distinguished from immediately precedent phases by an increase in the use of incising (Green 1963). With the higher relative percentage of appliqué to incised sherds in Level IV, the Nasilai sequence conforms to Green's phase distinctions.

As for the lowest-lying dark-gray clays, the ceramic fragments are too scarce to permit an exact correlation of the level with the known Fijian pottery sequences of temporal significance. The dominance of spot-paddle-impressed sherds does, however, suggest an early date associated with what Green has termed the "Navatu" phase, dated to between 100 B.C. and A.D. 1100 (Green 1963). Nunn indicates that it is difficult to estimate the antiquity of Level VI on the basis of sedimentation, "since the sequence is almost certainly incomplete. A maximum age for the occupation layer at the top of the bluish-gray clays of about 1000 years seems feasible. If the site were shown to be older, then clearly the amount of overlying material removed and thus the incompleteness of the record preserved have been underestimated" (Nunn, personal communication 1987).

THE POST-LINED DITCH STRUCTURE

The presence of a post-lined ditch structure dug into Level V, and within which sediments associated with Level IV were deposited, is indicated at Nasilai. Running through pits 4N1W and 6N3W is a double row of posts. A parallel double row of posts was detected in 6N3W and 6N5W. These posts are fashioned of relatively hard woods and are pointed at their base. This is with the exception of two coconut posts, one in 4N1W and one protruding out of the east baulk of 6N3W. The coconut posts are 15–20 cm in diameter. The other posts range in diameter from 5 to 10 cm. From the plan (Fig. 2), it is evident that the minimum dimension between the two double rows of posts is approximately 1.5 m. The posts extend from the northernmost pits through 4N1W. No evidence of posts was found in 0N0W. Evidence of *magimagi*, still well preserved, and in one case found in direct association with a post (in 4N1W), as well as fallen woven/plaited reed material, suggests some sort of walling attached to the posts by means of the cord (Pl. I).



Pl. I. Post-lined ditch structure: wooden posts with *magimagi* or sennit cord.

An additional aspect of the structural remains identified at Nasilai were the ends of two large, smoothly worked logs measuring between 15 and 20 cm in diameter. These logs were lying horizontally within the gray sediment of Level IV and protrude into the west baulk of 4N1W. The ends of the logs do not extend to the line of posts in 4N1W. The function of these two large horizontal logs is difficult to determine. Fijians use round logs of this type to construct bridges, laying them across waterways or swampy areas. Alternatively, it is conceivable that the logs may have functioned as rollers used as a slipway or ramp by which to propel vessels into the water.

The dense organic and cultural deposits (Level IV) are found lying within the confines of these double rows of posts. Sediment analysis indicates that this deposition occurred in a low-energy environment of swampy or slow-moving water-deposited conditions (Nunn, personal communication 1987). There is a sharp decrease in the frequency of organic and cultural artifacts between the inner and outer rows of posts.

There are a number of possible hypotheses to explain the precise nature of the structure within which Level IV and the canoe fragments were identified. Several short inlets serving as canoe docks are found today along the channel between Lomanikoro to beyond Drekena. According to Parry, who has conducted extensive research into the prehistoric settlement patterns of the area, all of these channels are man-made (Parry, personal communication 1987). The Level IV structure could represent just such a man-made channel, although in this case post-lined.

The presence of the *magimagi*, fallen reed material, and double rows of posts suggests a rather more interesting structure than simply a post-lined canal, how-

ever. Early historic references indicate that Fijian canoe sheds were often constructed of double rows of posts. However, the canoe pieces that were recovered from the site indicate a vessel at least three meters wide, which is not consistent with the small dimensions of the post-lined Nasilai ditch structure.

Finally, it is necessary to consider that the structure represented in Level IV may represent remnants of a village defensive structure. The characteristic Fijian village of the late prehistoric/early historic period in this area was a ring-ditch settlement. These were villages surrounded by one or more moats. Defensive walls or palisades often surrounded the village settlement forming extremely effective fortifications. In particular, such structures are documented to have, in many instances, incorporated coconut as well as harder wood posts in the defensive walls as well as the gate passages (Clunie 1985:14–15). Although some of the features of the ring-ditch fortifications are consistent with the Nasilai finds, the double rows of posts and the presence of posts to either side of the ditch do not conform to the classic fortification technique. Without more extensive excavation and areal display, the precise nature of the Level IV structure must remain undefined.

NASILAI ARTIFACTS

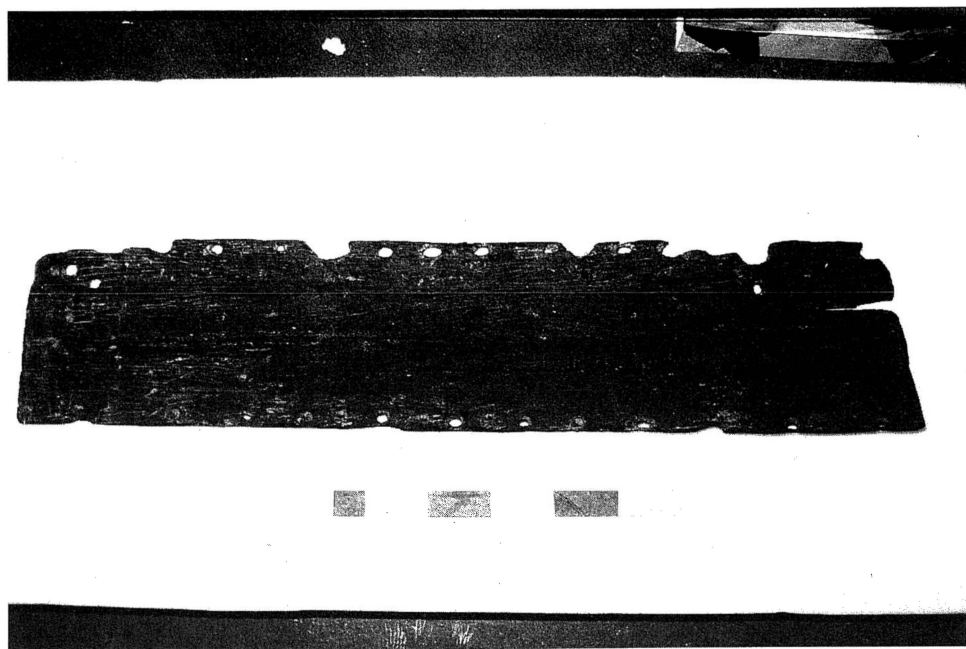
The Canoe Remains

In addition to the two canoe planks originally discovered in the Bucona riverbank, a number of other canoe fragments were exposed during the course of the excavations. Most significant among these pieces were a board identified as a pilaster on the open face of the shed on the platform of the canoe and the basal portion of the mast. Further, there are a series of worked wooden pieces that may be additional portions of the shed on the platform of the canoe, and two small stanchions and a worked wooden object in extremely fragmentary condition that may represent a portion of the outrigger and its attachment to the booms. These pieces are described below.

Fore/aft Canoe Plank with Raised Median Ridge (Fig. 4, Pl. II) — This piece is one of the two original canoe planks found eroding out of the riverbank by the Nasilai villagers. This plank, with its raised median ridge, is of considerable significance, because such planks are characteristic of the fore and aft transverse planks on the platforms of some of the Fijian outriggers, or *camakau*, as well as the double canoes. The dimensions of this piece conform neatly to the average dimensions of the *camakau* as cited by Neyret (1976:56). The average width of the *camakau* from hull to float, thus including the booms was nine feet. Among the various Fijian outriggers described by Neyret, the length of the booms are slightly more than the width of the canoe platform (Neyret 1976).

On this plank, the edge that bears four inset bored holes also shows evidence of wear and fragmentation at points along its edge. This appears to be the result of some holes having worn through the edge of the board. Three of the four inset holes are located adjacent to the fractures, suggesting that the plank was reworked or repaired.

Canoe Platform Plank with Holes (Fig. 5) — The second plank is of exactly the same dimensions as the previous piece and is presumably a second section of the outrig-

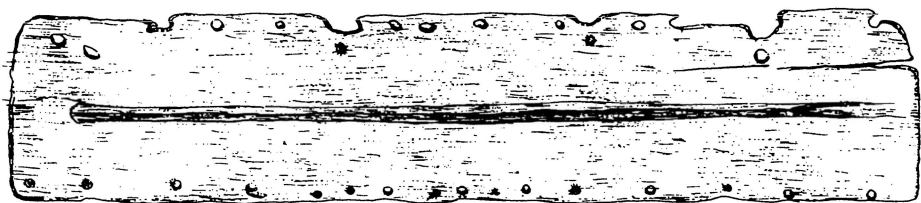
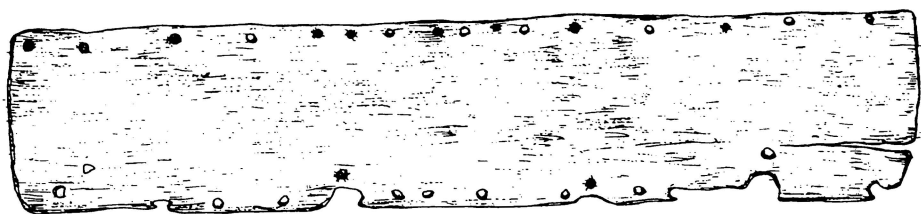


Pl. II. Fore/aft canoe plank with raised median ridge. Note *magimagi*, or sennit cord, running through bored holes and inset holes indicative of reworking or repair.

ger platform. However, holes along three edges of the plank indicate a piece that does not conform exactly to the outrigger platform decking as illustrated by Hornell and Hadden (1937) or Neyret (1976). In the illustrations provided by these authors, the central planks of the outrigger platform run longitudinally and appear, from the detail observable in their illustrations and photographs, to be somewhat longer than the fore and aft transverse planks of the platform. Because the Nasilai piece has holes bored on only one of its short sides, the plank could not have run longitudinally and been attached to the transverse planks at either end. Further, the correspondence in length of this second Nasilai plank to the first suggests that it was set transversely—parallel to the first plank. There is an illustrated Tongan canoe, seen by Abel Tasman in 1643, that has the platform boards set transversely (Durrans 1979). The holes bored on the one short edge of the Nasilai plank may represent the attachment of the platform to the booms. Neither of the two planks shows any evidence of a hatchway cut into the platform of the outrigger.

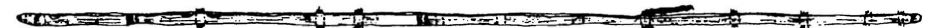
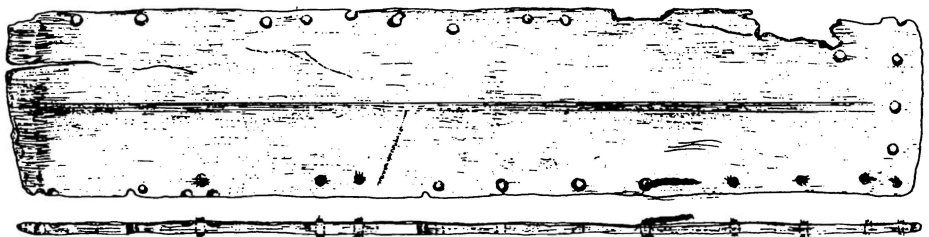
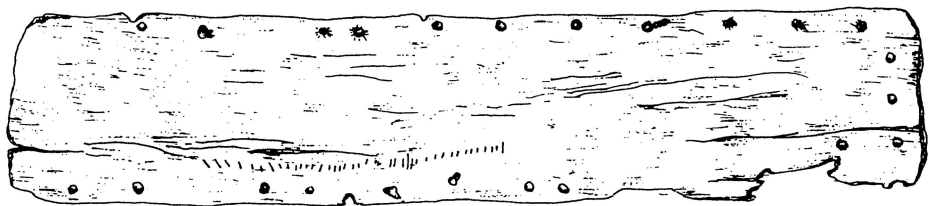
Pilaster (Fig. 6, Pl. III) — This piece is consistent with the pilasters on the open face of the cabin on the platform of Fijian canoes. The pilaster is carved with the characteristic geometric design typical of the pilasters on Fijian double canoes and some of the outriggers. The evidence of wear and breakage found on the raised carved segment of the piece is consistent with there once having been a protruding hook by which a post was characteristically set adjacent to the pilaster.

Mast (Fig. 7, Pl. IV) — This piece appears to be the basal portion of the canoe



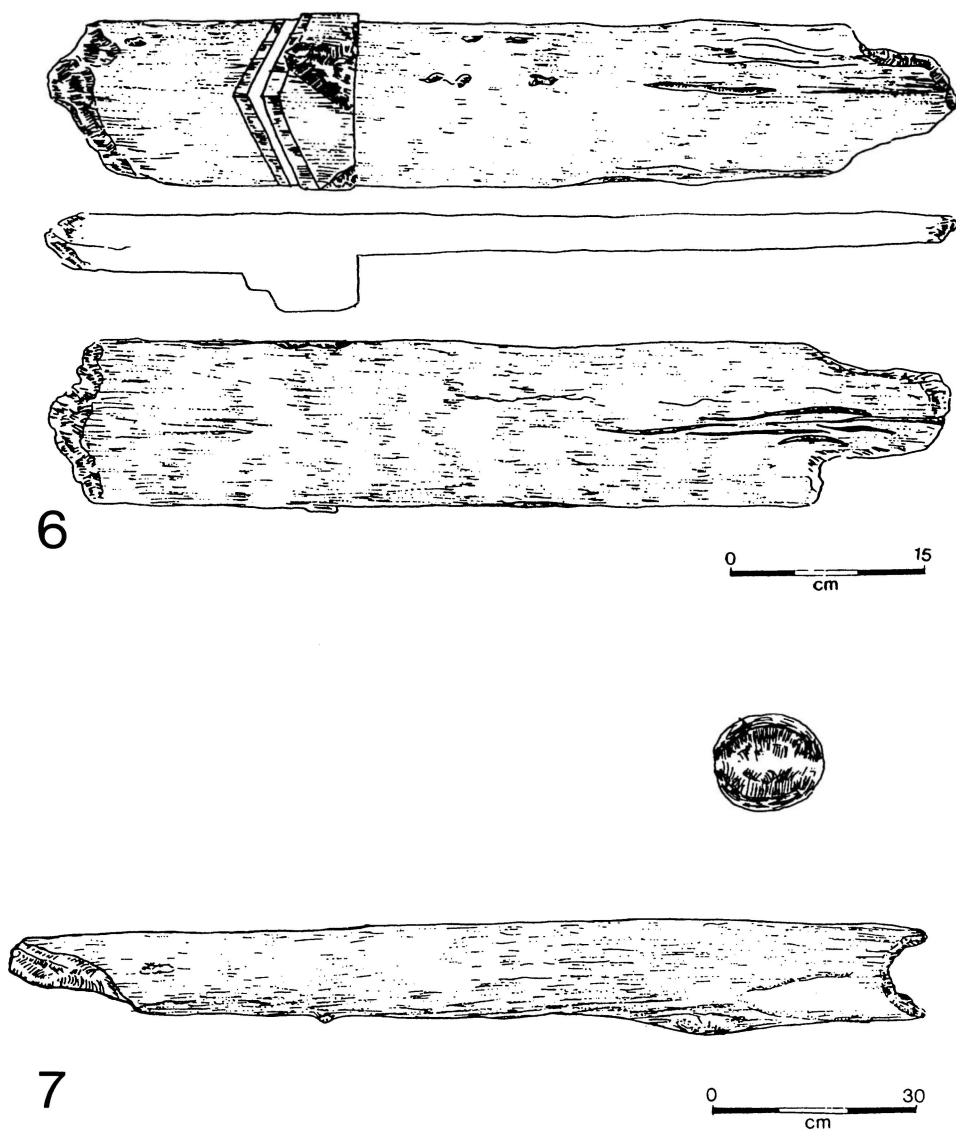
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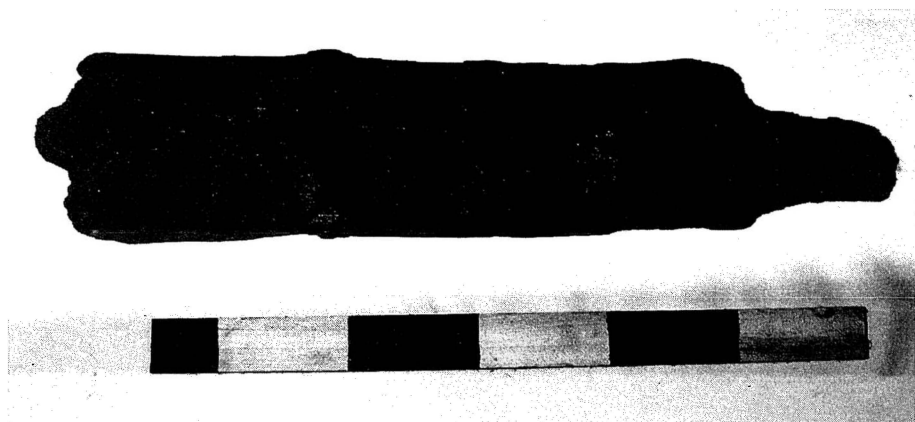
Figs. 4–5. 4, fore/aft canoe plank with raised median ridge. 5, canoe plank with holes bored along the two long sides as well as one of the short edges.



Figs. 6–7. 6, canoe shed pilaster. 7, basal portion of canoe mast.

mast. The mast includes a notch at the base by which it was set into a shoe fixed to the platform of the canoe. On the basis of ethnographic and historical data, this mast-fitting design is considered to be of Micronesian derivation (Clunie 1986; Hornell and Haddon 1937; Neyret 1976). The Nasilai canoe remains provide the earliest direct evidence of such a mast fitting in Fiji. The technique is consistent with the deck fitting on early historic Fijian double canoes and some of the outriggers (Hornell and Haddon 1937; Neyret 1976).

In addition to the pieces described above, there were a number of worked wooden artifacts that may also have been part of the canoe. These include one



Pl. III. Canoe shed pilaster. Note carved geometric design of two stepped triangles.



Pl. IV. Basal portion of canoe mast with basal notch.

small fragment of a third plank 18×6 cm in maximum dimension with a bored hole that is inset 1.5 cm from the finished edge of the piece.

In 4N1W, Level IV, a very fragmentary section of a smooth worked log was found. This piece was associated with two thin stakes cut smoothly at the base and showing evidence of extensive wear several centimeters below the tip. The wear appears to have been the result of cord tied around and rubbing against the stakes. The stakes were found at either side of the worked log. The smooth, round worked log was in extremely fragmentary condition. The piece was approx-

imately 50 cm in length (broken at one end) and 25 cm in diameter. This piece and the stakes with which it was associated may represent a portion of the outrigger float and the stanchions by which the float was attached to the booms. Further detailed study of these pieces is warranted.

In 6N3W, Level IV, a long curved piece somewhat thicker than the planks, 68 cm in length and 11 cm in width, was identified. This piece has a raised section at one end on one of its faces. The piece may represent the side buttress of the cabin on the canoe platform. This is indicated most particularly by its curvature. However, the piece has been subject to a great deal of wear and appears to have been rather more roughly hewn than is characteristic of the cabin buttresses.

At the same level in 6N3W, two slats measuring approximately 65 cm in length, 8 cm in width, and 1–2 cm in thickness were recovered. Additionally, in the northeast corner of the same pit, in Level IV, a series of thin tree-fern and bamboo stakes inclining at a vertical angle and faced with layered reeds were identified. These pieces may also represent fragments of the cabin on the platform of the canoe.

In sum, the canoe fragments identified from the Nasilai site are consistent in dimension and basic form with an outrigger canoe of the type termed in Fijian *camakau* (Neyret 1976). Neyret cites the dimensions of the Fijian *camakau* as follows: length of canoe 15 m, length of mast 9 m, length of outrigger float 7 m, diameter of outrigger float at least 30 cm (Neyret 1976 : 56).

The Nasilai canoe fragments differ from the later historic Fijian *camakau* in that a cabin on the platform of the canoe is indicated. Neyret describes a “former type from Lau and Tailevu” that is notable for the presence of a cabin on the canoe platform. In his description of this “former” canoe type, he notes that platform cabins were encountered on smaller canoe types in the 1800s before European influence affected Fijian naval construction. According to Neyret: “The most salient trait is the presence of a decked cabin that was previously encountered on canoes of medium dimension and which one no longer finds except rarely on some canoes of very great size” (Neyret 1976 : 59 [my translation]).

The Nasilai canoe provides the first direct archaeological evidence for this “former” canoe type described by Neyret—a small-to-medium-size outrigger canoe with a decked cabin placed on the platform.

The distribution of the canoe pieces at the Nasilai site indicate that the Nasilai canoe is not intact. The pilaster of the shed and base of the mast were found in proximity, consistent with deck-fitting design. The two planks were located approximately eight m to the north in the riverbank. However, with the exception of the small plank fragment, none of the intermediary planks were represented in the excavation units. The range of fragments represented and their conformity in dimension and form are consistent with a single vessel and suggest that an articulated canoe once present was somehow destroyed. The depositional history at the site, in particular the stratigraphic disconformity, probably flood-related, is the likely explanation for the disarticulated state of the canoe fragments. A hurricane or flood that could have removed up to 60 cm of deposits could also account for the destruction and dispersal of the canoe pieces.

Alternatively, canoe pieces are known to have been reused in other sorts of constructions. One such reused canoe plank, secondarily incorporated into a temple, is documented among the Fiji Museum collections (Clunie, personal communication 1987). Another is described by Wilkes as having been incorporated

into a fortification stockade (Wilkes 1845). It is possible that the Nasilai artifacts represent canoe pieces reused for some other purpose. In addition, recalling the nature of the structure with which the canoe pieces were associated—namely, a post-lined canal—and the density of the cultural materials found therein, the possibility that these are discarded and dumped fragments must remain a consideration. The evidence from the ethnobotanical remains (see below) suggests a final possibility. The seed material gives some indication of woodworking having been conducted at the site. It is possible that the canoe pieces represent sections awaiting or in the process of reworking or repair. Evidence of reworking and conservation of canoe pieces is clearly indicated by the extensive wear and redrilling of holes evident on both of the Nasilai canoe planks.

Other Worked Wood

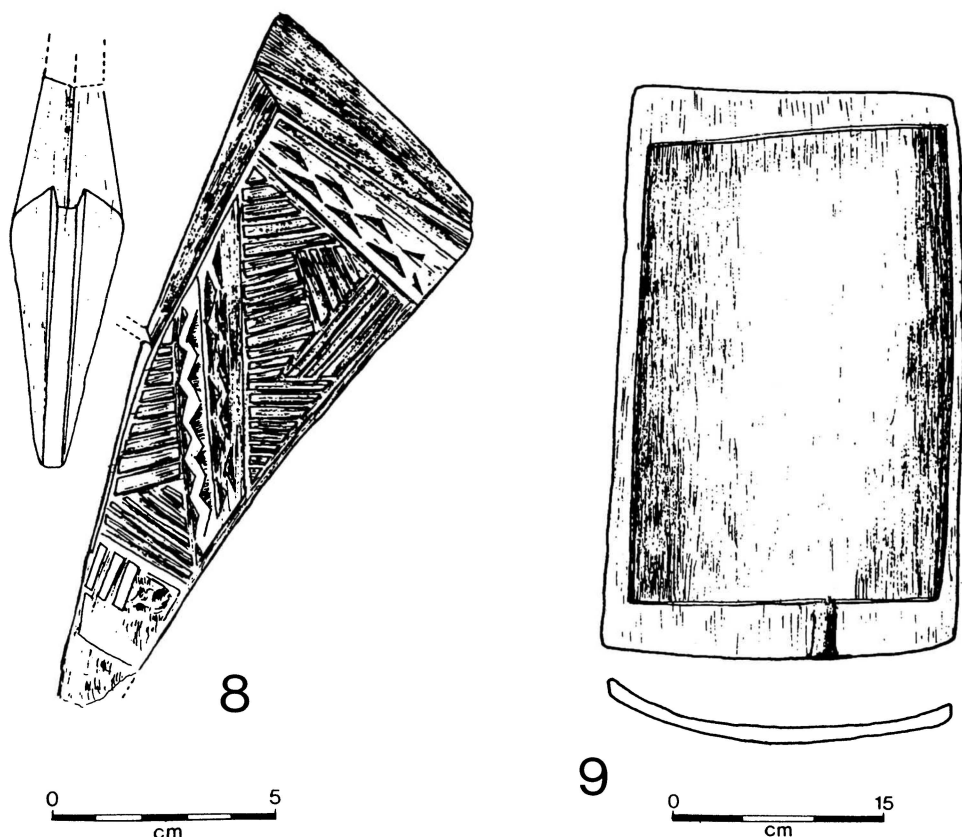
Two worked wooden artifacts of particular significance were recovered from the site of Nasilai in addition to the canoe fragments—a portion of a carved wooden club and a *bokola* serving dish. The club (Fig. 8) is of the *gata* type and bears detailed zigzag and geometric intricate carving. Measuring only 15 cm before the breakage where the handle begins, this club is of diminutive size and was probably not used in warfare but rather as a toy for young chiefs or as a Fijian dance or ceremonial club. According to Fergus Clunie, “miniature replicas of fighting clubs . . . were made as toys for children of chiefly rank, some being as finely finished, polished and decorated as the originals” (Clunie 1985:52). Further, “clubs made for dancing . . . were often scaled down replicas of fighting clubs” (Clunie 1985:51). Finally, Clunie notes that “sacred clubs were also used in religious rites concerned with turtle fishing, which follows some curious parallels with warfare and cannibalism, with the clubs being taken on the turtle fishing canoes” (Clunie 1985:51). This last reference is particularly suggestive given the association of the Nasilai club head with the canoe pieces within Level IV and the hereditary role of Nasilai inhabitants as fishers of turtle.

The *bokola* serving dish was one of the original pieces found eroding out of the riverbank and brought to the Fiji Museum by the Nasilai villagers (Fig. 9). The piece is carved of *vesi* or ironwood. It is 40 cm long, 25 cm wide, and approximately 1.5 cm thick. The piece is slightly curved along its long dimension. There is a raised border around the margins of the upper face of this piece. The artifact was identified as a *bokola*, or cannibal victim serving dish, by Fergus Clunie, director of the Fiji Museum (Clunie, personal communication 1987).

In addition, three wooden pottery paddles, or *tala*, were recovered from Nasilai. One of these was found eroding out of the riverbank and was brought by the villagers after the excavation season. This last was found in association with a waterworn stone that may also have been a pottery-producing implement (Wilkes 1845:368). Nasilai has a great reputation as a major pottery-producing center, and it is consistent that archaeological evidence of pottery production was identified at the site.

Stone

Worked stone artifacts were infrequent at the site. However, the small quantity present is most significant (Fig. 10). In particular, a flaked stone tool and one simpledebitage flake were recovered. This is most unusual in the documented Fijian



Figs. 8–9. 8, *gata* club head. 9, *bokola* serving dish.

archaeological record. The stone tool is a small flake 3.5 cm in length, 2.5 cm in breadth, and 0.7 cm in maximum thickness. Small pressure flakes intruding into the dorsal surface have been systematically removed along the entire edge of the piece, with the exception of the flake platform. The end product is a tool with sharp dentate projections. In addition, one small flake with a thin lip and small bulb of percussion was recovered from the site. This piece showed no secondary modification and, unlike the piece noted above, could have been produced by natural processes as opposed to being man-made.

In addition to the flaked stone, one polished stone adze was recovered from the Nasilai site. Fashioned of feldspar basalt or basic andesite rich in feldspar phenocrysts, the source of the raw material is most likely Vanua Levu, Kadavu, or the Lau Group (Peter Rhodda, Ministry of Lands and Mineral Resources, Fiji, personal communication). This source determination is most significant because it indicates contact with the outlying islands. On the basis of known social relations, Kadavu would be the most likely source. Kadavu was subject to Rewa, and contact between the two locales is known to have been frequent during the 1700s and 1800s. In particular, Kadavu was known for its carpenter clans, who built the canoes for the Rewan chiefs.

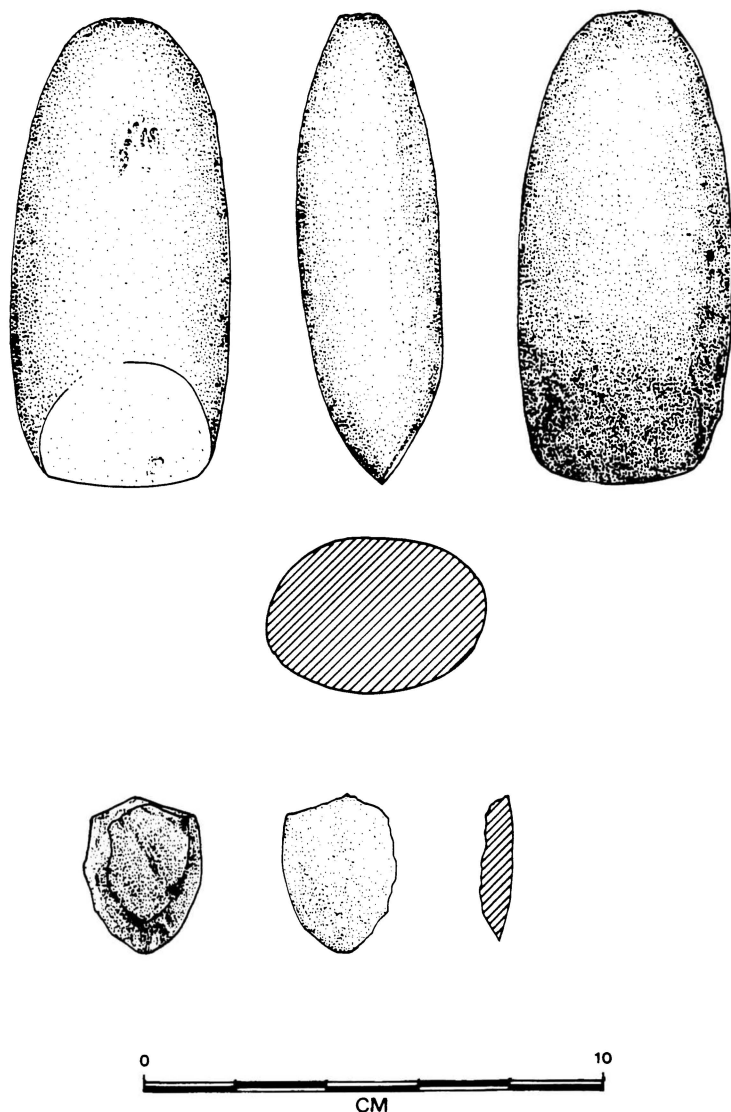


Fig. 10. Nasilai worked stone.

Metal

Several historic artifacts such as copper buttons, a harmonica fragment, a metal spoon, and a number of iron artifacts were recovered from the most recent three levels at Nasilai. Most of the iron artifacts, some in large patches, were unidentifiable due to their fragmentary condition. These objects were pedestled at the site and removed to the conservation lab in the soil matrix in which they were embedded. X-rays of some of these iron samples were taken at Colonial War Memorial Hospital through the courtesy of Dr. Stephens, director of the x-ray division. Most of the iron objects were amorphous, although several nails were identified.

Macrobotany

Seed identifications were conducted by Saula Vodonaivalu of the South Pacific Regional Herbarium, Institute of Natural Resources, University of the South Pacific. By far the highest frequency of seed material (and organic material, in general) was recovered from the gray clays lying within the post-lined canal (Level IV). The most common seeds found at the site within all levels is *Aleuritis moluccana*, or candlenut. The frequency of candlenut is followed in the gray silts and underlying levels by *Inocarpus fagifer*. In addition to these two most frequent seed types, Vodonaivalu also notes, in preliminary analysis, that the remaining seed types derive from select woods of highly valued quality, food plants, plants used for dyes and ceramic glazes, glues for woodworking, medicinal plants, and plants used to produce fish poison. Vodonaivalu indicates that, in general, the Nasilai seed remains indicate pottery, oil, barkcloth, and woodworking activities at the site. In addition, he notes that the plants are all of species indigenous to Fiji. The seed types reflect both cultivated and wild plant species derived from coastal, swamp, and inland environments (Vodonaivalu, personal communication 1987).

Shell

Species identification of shell types was undertaken by Kenneth Gilchrist. The great majority of shell is of four main groups: *Trochus niloticus*, *Garfrarium tumidum*, *Anadara* spp., and *Batissa violacea*. There are a very small number of fragments of other molluscs recovered from the Nasilai site. These would all be edible. The only shells of a different category are the group of small black *Vittina* species (Family Neritidae) which would be too small for cooking and may have been used on fishing nets or for other functional or ornamental purposes. In addition, the finding of several cone shells traditionally used as barkcloth scrapers is notable in light of the ethnobotanical analysis that also suggests barkcloth manufacture.

According to Gilchrist, the remains from Nasilai are typical of the debris found from eating in almost any Fijian village today within reasonable distance from the coast. Although no detailed measurements of the shell were undertaken that would indicate changes in the shell resources available and selection pressure on shell beds through time, Gilchrist does note one marked difference between the Nasilai material and the shellfish common to Fiji today. In comparison to the modern *Anadara* abundantly consumed and sold by the basketful in markets today, the Nasilai *Anadara* specimens are, with few exceptions, much smaller (Gilchrist, personal communication 1987). The finding together of reef, sandy beach, and freshwater species in every level except for V and VI, which had no shell whatsoever, indicates the exploitation of a range of environments and is fairly conclusive proof that the shellfish were collected and transported to the site.

Over 80 percent of the shell from the Nasilai site was found in the lowest gray sediments within the post-lined canal (lower horizon of Level IV). These deposits include the full range of species identified at the site. Two distinct shell lenses within these deposits are confined to a smaller number of species, predominantly *Anadara*. These lenses may represent discrete periods of dumping.

Bone

One worked bone artifact and a small quantity of unworked bone fragments were recovered from the Nasilai excavations. The worked piece is a bone needle with a hole drilled in its head and showing evidence of wear on its tip. It may represent a sail-manufacturing needle. The bone needle was examined by Douglas Owsley, physical anthropologist at the Smithsonian Institution. On the basis of morphology, the bone is probably not human. The porosity on the surface of the piece can be attributed either to remnants of the endostial surface or to postmortem weathering (Owsley, personal communication 1988).

The unworked bone fragments were examined by Robert Mann, human osteologist at the Smithsonian Institution. According to Mann, no human bone is represented among the Nasilai specimens.

Faunal identifications of the Nasilai bone material were undertaken by Melinda Zeder, zooarchaeologist at the Smithsonian Institution. According to her, much of the bone was too fragmentary to be identified. However, pig, fish, and possibly dog are identifiable in the Nasilai faunal assemblage (Zeder, personal communication 1988). All of the faunal material from Nasilai was found either in Level I or in Level II. The faunal identifications are all of commonly consumed animal species and indicate that the bone material from Nasilai is most probably food refuse.

Ceramics

Over 5000 sherds were collected from the Nasilai site over the course of the 1987 field season. All diagnostic sherds, which included rim and decorated sherds, were documented according to a list of 150 key variables of form and decoration. The attributes examined follow, for the most part, those defined by Simon Best in his research on Lakeba (Best 1985). In presence/absence terms, the upper four levels at Nasilai exhibit all of the decoration techniques examined (Figs. 11 and 12). Levels V and VI do not include any evidence of modeling or side tool techniques. However, this may be due to random chance resulting from the small size of the ceramic assemblages in those layers. Spot-paddle-impressed sherds range from 1 to 6 percent in the upper four levels at Nasilai.

The division of the Fijian ceramics into distinct ceramic traditions of temporal significance based predominantly upon gross overall generalization of ceramic decoration technique has been criticized by such researchers as Clunie (personal communication 1987), Frost (1974) and Palmer (1969). Palmer has queried the early temporal limits of the carved-paddle-impressed wares, as well as the late temporal associations of some of the incised pottery techniques (Palmer 1969). Frost emphasizes, in particular, the co-occurrence of impressed and incised wares within the majority of the Taveuni forts he examined. He does not accept that this is the result of stratigraphical mixing. The presence of a complete range of pottery decoration techniques in the upper four levels at Nasilai, including not insignificant frequencies of paddle-impressed sherds from clearcut stratigraphic contexts of late prehistoric and historic time periods, supports the claims of those researchers who argue that the Fijian ceramics do not divide neatly into time periods based upon the presence or absence of general technique of decoration.

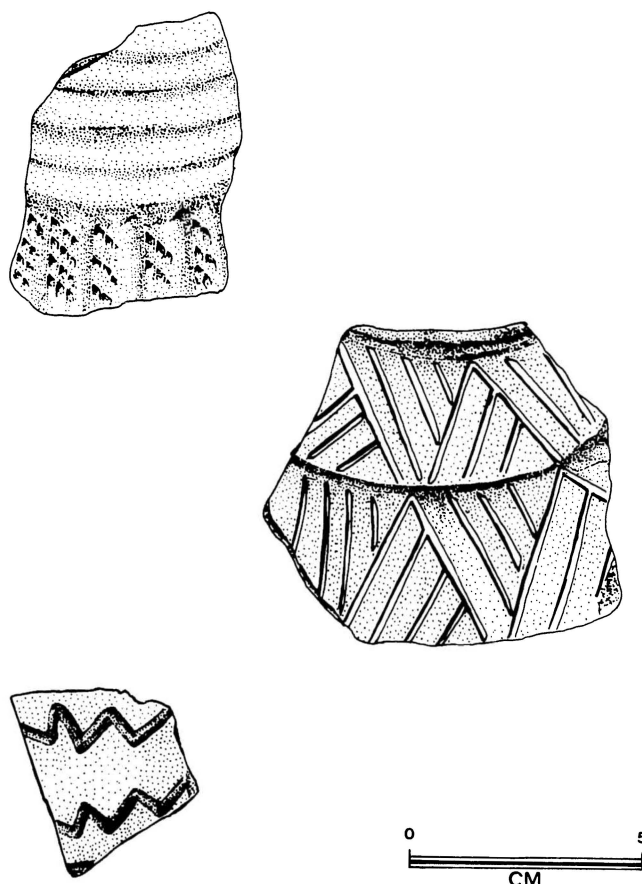


Fig. 11. Nasilai ceramic decoration techniques: modeling and shell impressed, incised, and appliqué.

Rather, some of the paddle-impressed wares, though dominating earlier assemblages, continue right through in lesser relative numbers into the historic period.

It is critical to emphasize that even pottery distributions measured in terms of relative frequency of decoration techniques may differ significantly by region within Fiji. It is well documented that during the late prehistoric and historic periods in eastern Fiji, pottery was produced by specialized clans at a limited number of centers. Distinctions in decoration and technique of manufacture among these different pottery-production centers have been identified (Palmer 1969). Given such a structure for pottery production, in combination with historically known patterns of exchange and interregional contact, regional variability in the distribution of some aspects of the pottery assemblages, at least for the late prehistoric and historic periods in Fiji, would be predicted. Historically, Rewan pottery is known for its appliqué relief techniques. Pottery produced in the village today is characterized by a high frequency of appliqué decoration. With its high percentage of appliqué decoration motifs, the Nasilai archaeological ceramic assemblage is consistent with the contemporaneous and historically documented pattern. Whether the proportion of appliqué sherds within the Nasilai assemblage

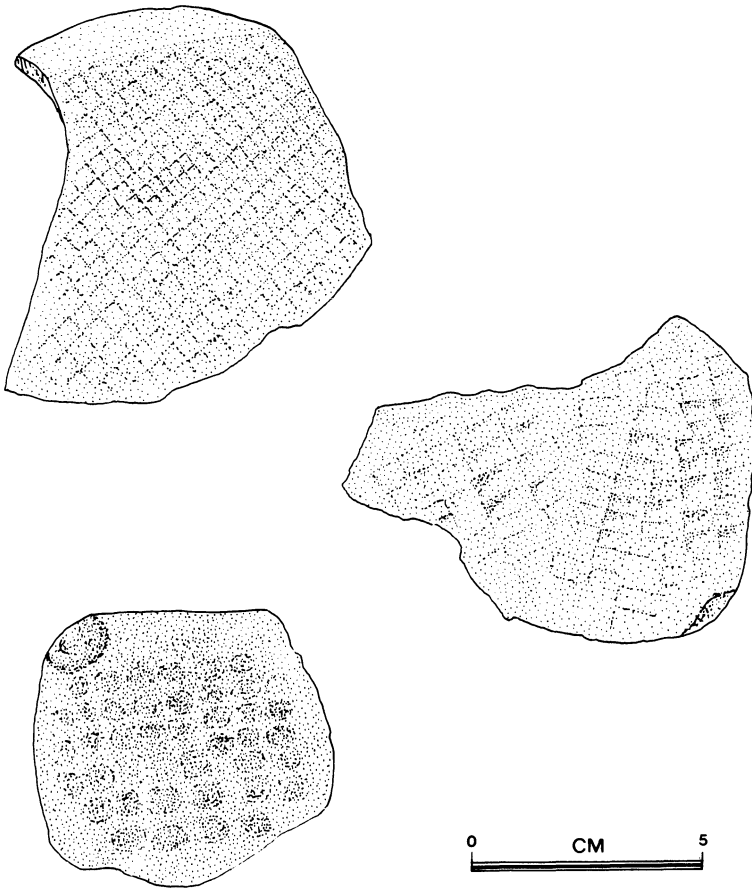


Fig. 12. Nasilai ceramic decoration techniques: cross-hatch-paddle-impressed and spot-paddle-impressed.

is significantly greater than the percentage of appliqué sherds within late pre-historic/early historic levels throughout Fiji in general, can only be assessed through future excavation, description, and comparison with additional late prehistoric/early historic ceramic assemblages in Fiji.

Moving away from ceramic decoration techniques, the distribution of pottery orifice diameter measurements was examined by level. Very broadly, the measurements may be considered according to the common functional categories by which pottery is classified by Fijians both historically and today. The smallest orifice diameter measurements represent predominantly the *saka*, or water vessels; the largest orifice diameter measurements reflect primarily the *dari*, or large open bowls; and the intermediate orifice diameter measurements indicate the *kuro*, or cooking pots. This is a very rough categorization of the pots, as there are clearly pottery types such as oil lamps, larger mouthed *kuro*, unusual naturalistic shaped pots, and so on that would cut across these three groupings of orifice diameter. The data indicate a consistency in the dominance of pots of 18 cm in orifice diameter within the six levels. This suggests a high percentage of *kuro*, or cooking

pots, within the Nasilai site, an interpretation strengthened by measures of rim orientation wherein everted rims, characteristic of the *kuro* (as well as some other vessel types) are found in disproportionately high numbers within each of the six levels. It is significant, however, that the distribution of rim/body contour counts indicates a shift wherein Levels III and IV are dominated by an indirect contour and Levels I and II a direct rim/body contour.

As for some of the other aspects of Nasilai pottery form, the relative frequency of thick-rim sherds decreases from levels VI and V, with a dominance of sherds of thickness 9.0 to 15.0 mm and 6.0 to 9.0 mm, respectively. In the upper four levels, rim sherds of less than 4.0 mm in thickness are represented, and rim sherds of 4.0 to 6.0 mm in thickness are almost equal to or outnumber the frequency of the thicker sherds.

In all levels at Nasilai, rim course is predominantly straight, with some concave/even, concave/uneven and, especially, convex/even rim course sherds represented. Lipshapes are diverse. In contrast to the Lakeba assemblages examined by Best, rim profiles in the upper four levels at Nasilai include a small number of sherds with a parallel profile and thinning toward the lip (Figs. 13 and 14).

Temper at Nasilai were documented by simple visual inspection and recorded. In all levels at Nasilai, light sands were by far the dominant temper type. However, in all levels some shell as well as some black sand tempers were evident.

CONCLUSION

Archaeological excavations at the site of Nasilai, in the Rewa Delta, Viti Levu, Fiji, indicate, even on the basis of small-scale test excavation, cultural deposits of remarkable quality of preservation and unique cultural and historical significance, both to Fiji in particular and to the Pacific region in general.

The deposits in Level IV include the remains of an outrigger canoe of the *camakau* type. This level is dated to between A.D. 1440 and the earliest decades of the 1800s. This canoe is unusual in that a cabin with upper deck is indicated on its platform. This "early" feature has been known to scholars previously only on the basis of oral histories and historical references (Neyret 1976).²

The 1987 archaeological excavation leaves open a number of significant questions about the Nasilai site. In particular, there remains the question of the function of the holes that have been bored on a third short side of one of the canoe planks. In addition, the nature of the permanent structure in Level IV requires definition.

Nonetheless, the Nasilai excavation provides significant contributions to the documentation of the cultural heritage and maritime history of Fiji and the Pacific region. Investigations of ships, at one time the "largest single movable objects known to early man" (Johnstone 1974) bear reference not only to developing forms of transportation but, additionally and significantly, to the linkages and contacts among peoples, locally and interisland or regionally. In this regard, the Nasilai canoe remains provide direct evidence for the incorporation of a specifically Micronesian maritime technology into Fijian canoe design. This is witnessed in the technique of mast fitting evident on the Nasilai canoe. The notched base of the mast, set onto a step placed on the platform of the canoe, permitted

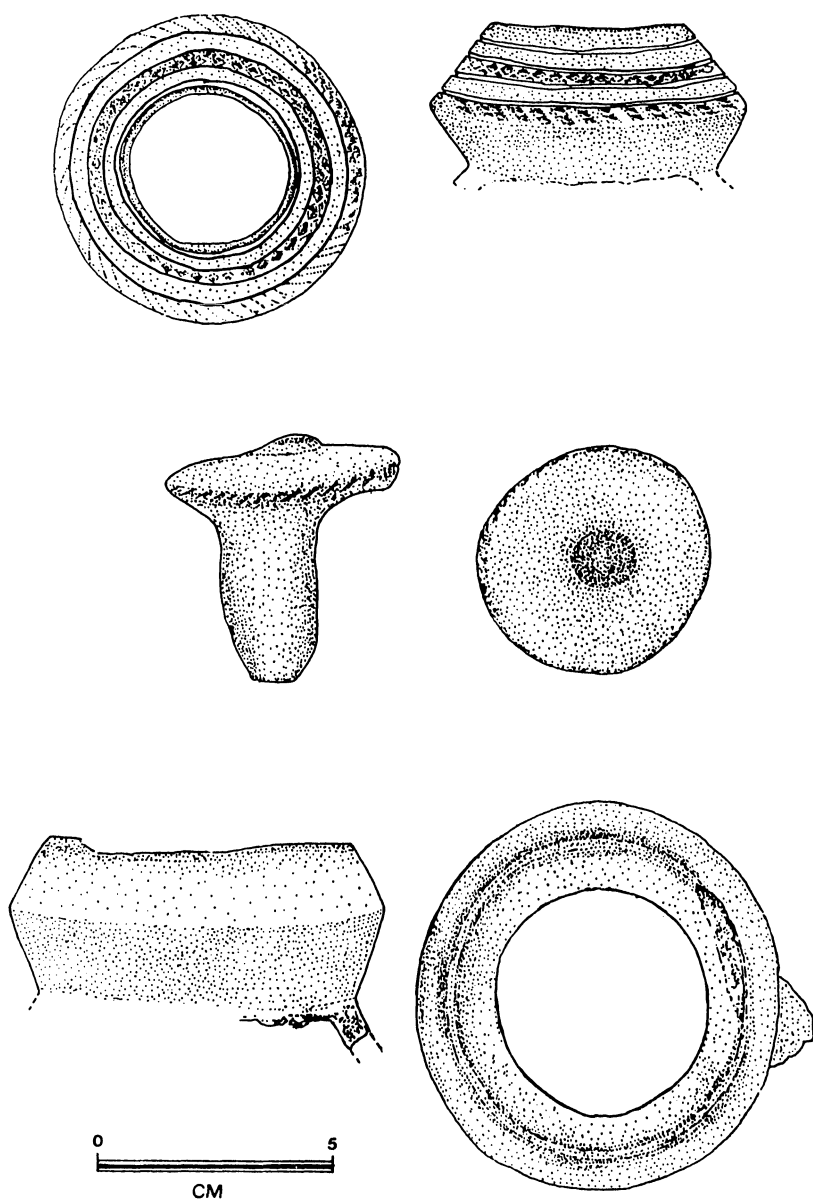


Fig. 13. Nasilai ceramic rims, orifices, and plug.

the entire sail to be pivoted in accordance with changing wind directions. This innovation in canoe technology had important implications for regional seafaring, for the technique enabled vessels to beat “more effectively to windward” (Clunie, personal communication 1987). On the basis of oral histories and ethno-historical data, Clunie estimates that this innovation was introduced during approximately the 1700s in Fiji (Clunie, personal communication 1987). According to him:

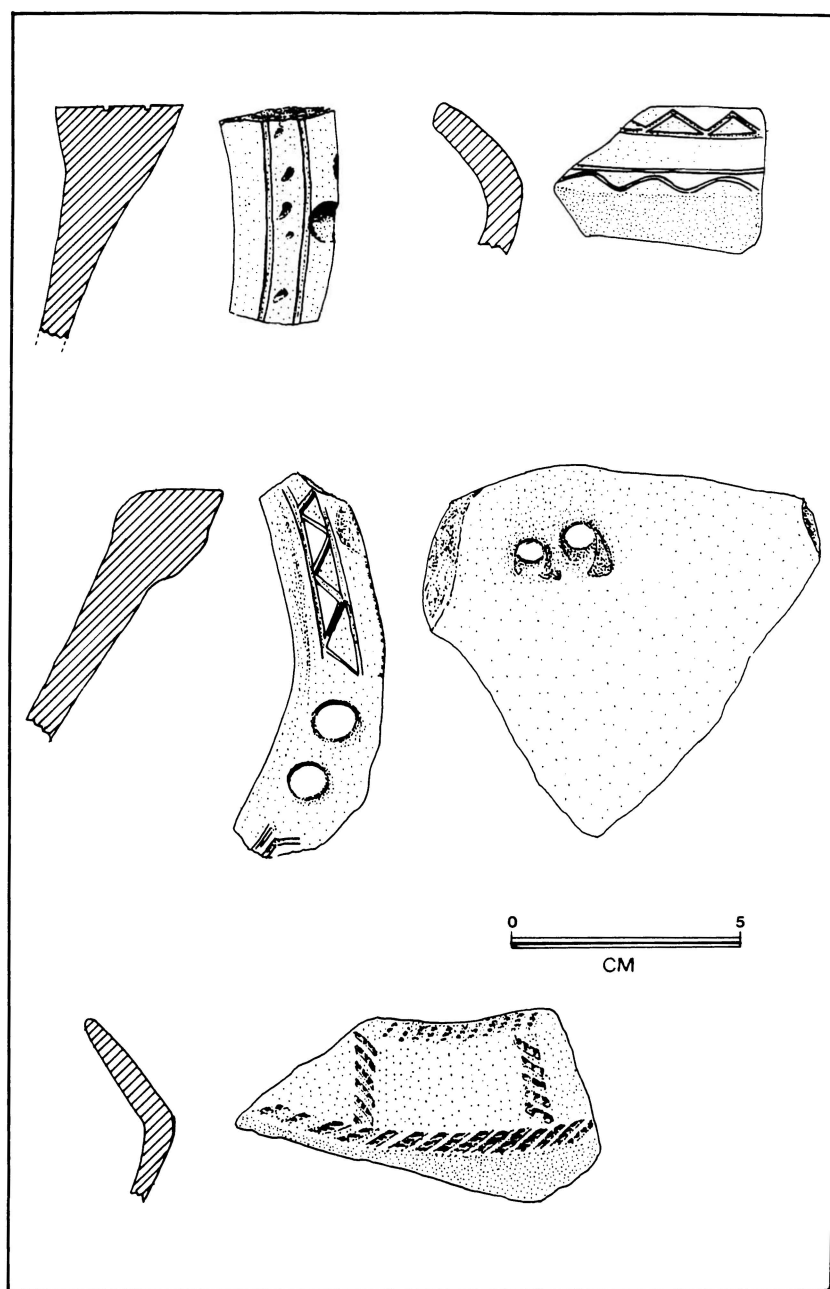


Fig. 14. Nasilai ceramic rims and profiles.

(there was) adoption of a Micronesian sail plan and drastic modification of . . . canoe designs. With the "new" rig the yard was freed from the clumsy masthead horns by slinging it from halyards, the mast stepped so that it could pivot or be tilted fore and aft, and the triangular foot of the sail, with the converging feet of its attached yard and boom, heeled and lashed at the canoe's bow. The canoe was now amphi-

dromous, or capable of running either end first, and able to beat into the wind in reasonable seas. (Clunie 1986)

Archaeological evidence from the site of Nasilai in the Rewa Delta, Fiji, provides the first direct evidence of the notched base of a canoe mast indicating the amphidromous canoe type dating to between A.D. 1440 and 1830. Thus, the evidence indicates the development of amphidromous canoe technology, certainly, by the early nineteenth century.

The new amphidromous naval technology may also have had implications for late prehistoric sociopolitical developments. A relationship between maritime technology and political development has not gone unremarked in the literature on Pacific prehistory. For instance, with regard to the "chiefdoms" of Tonga, Kirch argues that they "depended vitally upon developed canoe building and navigation. . . . Lapaha, the seat of the Tu'i Tonga, was reputedly chosen because of the advantage of its safe anchorage" (Kirch 1984:237). In like fashion, recent archaeological investigations undertaken in southeastern Viti Levu, Fiji, indicate a striking association between increased social stratification and the development of nucleated settlement centers, and a coastal location, good anchorage, and the construction of facilities for the docking of canoes (Rosenthal 1991, 1993). The Nasilai evidence described in this paper indicates the contemporaneous development of the amphidromous canoe technology. This new technology facilitated intra- and interisland interaction and ease of maritime exploitation, and thus may have been integral to the rise of the complex, late prehistoric sociopolitical forms of western Polynesia and Fiji.

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NOTES

1. An additional and significant component of the project was the opportunity such excavations offered for local education and training in archaeological techniques.
2. The only comparable well-documented archaeological excavation of a canoe of any type in the Pacific region is the work of Dr. Sinoto of the Bishop Museum (Honolulu) on Huahine in French Polynesia (1979).

REFERENCES

- BEST, S.
1985 The Prehistory of Lakeba, Fiji. Ph.D. diss., University of Auckland.
- CLUNIE, F.
1985 *Fijian Weapons and Warfare*. Suva: Oceania Printers.
1986 *Yalo i Viti*. Suva: Fiji Museum.
- DURRANS, B.
1979 Ancient Pacific voyaging: Cook's views and the development of interpretation, in *Captain Cook and the South Pacific*, ed. T. C. Mitchell. London: British Museum Publications.

- FRIEDMAN, J.
1982 Catastrophe and continuity in social evolution, in *Theory and Explanation in Archaeology*, ed. C. Renfrew, M. Rowlands, and B. Segraves. New York: Academic Press.
- FROST, E. L.
1974 *Archaeological Excavations of Fortified Sites on Taveuni*. Asian and Pacific Archaeology Series No. 6. Honolulu: Social Science Research Institute, University of Hawai'i.
- GIFFORD, E. W.
1951 Archaeological excavations in Fiji. *University of California Anthropological Records* 13: 189–288.
1955 Six Fijian radiocarbon dates. *Journal of the Polynesian Society* 64: 240.
- GREEN, R. C.
1963 A suggested revision of the Fijian sequence. *Journal of the Polynesian Society* 72: 235–253.
- HAU'OFA, E.
1994 Our sea of islands. *The Contemporary Pacific* 6(1): 147–161.
- HORNELL, J., AND A. C. HADDON
1937 *Canoes of Oceania, Vols. I and II*. Honolulu: B. P. Bishop Museum.
- JOHNSTONE, P.
1974 *The Archaeology of Ships*. London: Bodley Head.
- KAEPPLER, A.
1971 Rank in Tonga. *Ethnology* 10(2): 174–193.
1978 Exchange patterns in goods and spouses: Fiji, Tonga and Samoa. *Mankind* 11(3): 246–252.
- KIRCH, P. V.
1984 *The Evolution of the Polynesian Chiefdoms*. Cambridge: Cambridge University Press.
- NEYRET, J.
1976 *Piroques Oceaniennes, Vols. I and II*. Paris: Palais de Chaillot.
- PALMER, J. B.
1969 Archaeology in Fiji. *New Zealand Archaeological Association Newsletter* 8(1): 3–5.
1971 Fijian pottery technologies: Their relevance to certain problems of Southwest Pacific prehistory, in *Studies in Oceanic Culture History II*: 77–85, ed. R. C. Green and M. Kelly. Pacific Anthropological Records No. 12. Honolulu: Bishop Museum.
- PARRY, J. T.
1977 *Ring-ditch Fortifications in the Rewa Delta, Fiji: Air Photo Interpretation and Analysis*. Bulletin of the Fiji Museum No. 3. Suva: Oceania Printers.
- ROSENTHAL, M. E.
1991 Realms and Ritual: The Form and Rise of *Civitas* and *Urbs* in Southeastern Viti Levu, Fiji. Ph.D. diss., University of Chicago.
1993 Ceremonialism, polity formation and commodity exchange in Late Prehistoric Southeastern Viti Levu, Fiji. Paper presented in the session "World Histories in Oceania" at the Second International Conference on World History, June 24–27.
- SHAW, E.
1967 A Reanalysis of Pottery from Navatu and Vuda, Fiji. M.A. thesis, University of Auckland.
- SINOTO, Y.
1979 Excavations in Huahine, French Polynesia. *Pacific Studies* 3: 1–40.
- WILKES, C.
1845 *Narrative of the U.S. Exploring Expedition 1838–1842, Vol. III*. Philadelphia: Lea and Blanchard.

ABSTRACT

This paper presents the results of archaeological excavations of portions of a late prehistoric/early historic Fijian *camakau*, or outrigger canoe. The excavations, conducted under the auspices of the Fiji Museum, were undertaken in 1987 at the site

of Nasilai, in the Rewa Delta, Viti Levu, Fiji. The Nasilai canoe remains provide direct evidence of a medium-size outrigger canoe that had a cabin with upper deck situated on the canoe platform. This "early" feature has been known to scholars previously only on the basis of oral histories and historical references (Neyret 1976). Further, the Nasilai canoe remains provide the earliest direct archaeological evidence for the incorporation of a specifically Micronesian maritime technological feature into the Fijian canoe design. This is witnessed in a technique of mast fitting seen on the Nasilai canoe. The notched base of the mast, set onto a step placed on the platform of the canoe, permitted the entire sail to pivot in accordance with changing wind directions. This amphidromous canoe design is dated at Nasilai, on the basis of two ^{14}C readings in combination with stratigraphic evidence indicating an absence of historic objects in the canoe-bearing stratum, to A.D. 1440–1830. The amphidromous canoe design had implications for regional seafaring—the newly incorporated technique permitted vessels to beat against prevailing winds, facilitating inter- and inraisland interactions and hence potentially larger sociopolitical trends. **KEYWORDS:** Pacific archaeology, Fiji, outrigger canoe, amphidromous, decked platform cabin, maritime technology.